

SPONTANEOUS FETAL DEATHS: STATE SUMMARY

SPONTANEOUS FETAL DEATHS

INTRODUCTION

Purpose of Spontaneous Fetal Death Surveillance

A **fetal death** is the death of a human fetus that occurs prior to its expulsion or extraction from its mother, irrespective of the duration of pregnancy. In Louisiana a **spontaneous fetal death** (also referred to as stillbirth) is a fetal death that meets these criteria:

1. the fetus survived at least 20 weeks gestation or weighed at least 350 grams, and
2. the death was not the result of an induced termination of pregnancy.

As with infant mortality, a high rate of fetal deaths reflects unfavorable environmental influences and inavailability of medical care. Spontaneous fetal death surveillance is important in identifying factors that result in infant deaths, so that high risk populations can be identified and risk-reducing interventions can be devised.

Source of Data: Certificate of Fetal Death (Stillbirth)

Spontaneous fetal death information presented in this report is gathered from data recorded on the *Certificate of Fetal Death* for spontaneous fetal deaths that occurred to infants born to Louisiana residents during the 1996 calendar year. Louisiana law requires that fetal deaths of at least 20 weeks gestation or 350 grams be reported to the Vital Records Registry within 5 days of occurrence.

Information on the fetal death certificate is completed by a physician or coroner in consultation with the parent(s).

Death statistics are compiled in accordance with World Health Organization (WHO) regulations, which require member nations to classify causes of death according to the revision of the International Statistical Classification of Disease, Injuries, and Causes of Death in effect at the time of death. Fetal deaths that occurred in 1996 are coded in accordance with the ninth revision (ICD-9).

All of the causes of death described in this report are **underlying causes of death**, defined as the disease or injury that initiated the sequence of events leading to death. Secondary causes of death, which are also recorded on the death certificate, are not presented in this report.

The degree of registration completeness for spontaneous fetal deaths is unknown, but some under-registration is likely, especially for stillbirths near 20 weeks gestation.

FETAL DEATH COUNTS AND RATES

Counts and Rates by Various Definitions of Fetal Death

- In 1996, 566 fetal deaths to Louisiana residents were reported to the Vital Records Registry. Twenty-eight of these deaths failed to meet Louisiana's definition of a spontaneous fetal death either by gestation or by birthweight.
- Louisiana's 1996 fetal mortality rate was 8.2 fetal deaths per 1,000 live births plus fetal deaths. This rate was slightly higher than the 1995 rate of 7.6 per 1,000 live births plus fetal deaths (Table F1).

Table F1. Counts and Rates* of Fetal Deaths by Maternal Race Louisiana, 1995-1996						
(Fetal death defined as gestation \geq 20 weeks or birthweight \geq 350 grams)						
Year	Maternal Race					
	White		Black		All Races**	
	Number	Rate	Number	Rate	Number	Rate
1995	231	5.7	280	10.3	501	7.6
1996	234	6.2	297	11.1	538	8.2

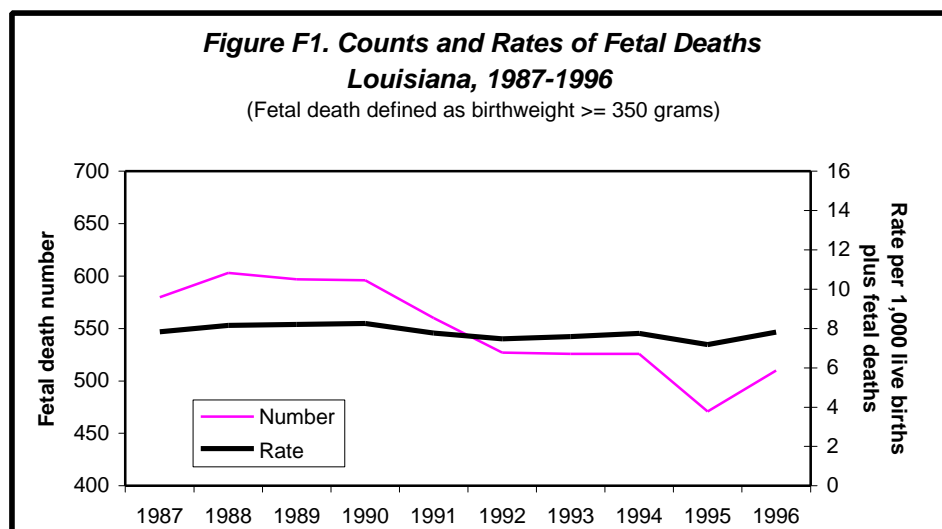
*Rate per 1,000 live births plus fetal deaths in race group

**"All Races" contains white, African-American, and other

The **fetal mortality rate** is calculated by dividing the number of fetal deaths in a given time period by the number of live births plus fetal deaths in that same time period, then multiplying the quotient by 1,000. The rates are expressed as the number of fetal deaths per 1,000 live births plus fetal deaths.

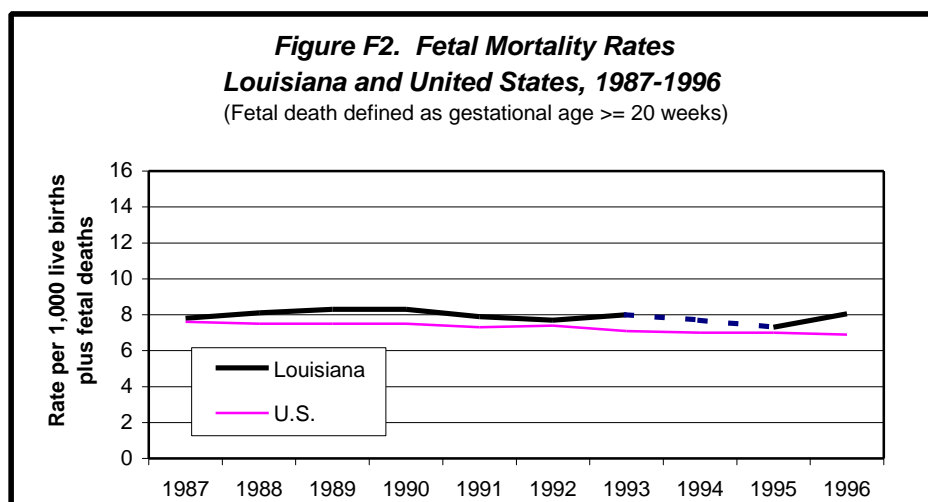
Since 1995 Louisiana has defined a spontaneous fetal death as a death to a fetus with gestational age of at least 20 weeks or birthweight of at least 350 grams. Prior to 1995, however, Louisiana's fetal death certificates did not collect gestational age; fetal deaths were defined only by birthweight of at least 350 grams. Therefore, fetal deaths defined only by birthweight of at least 350 grams are used for examination of longitudinal state trends in Figure 1 and Table 2.

- Although the number of Louisiana fetal deaths has declined almost every year since 1987, fetal mortality rates have remained stable over the past ten years (Figure F1 and Table F2).



The National Center for Health Statistics (NCHS), which presents fetal death information at the national level, uses only gestational age (at least 20 weeks) in its definition of a fetal death. To facilitate comparison between Louisiana and the United States, fetal death data based on the NCHS definition are used in all Louisiana versus United States data presentations.

- **Louisiana and United States fetal mortality rates have been consistently similar during the past ten years** (Figure F2, Table F3).



"—" = Louisiana Fetal mortality rate is not available for 1994

Source: Louisiana data for 1987-1993 were obtained from the National Vital Statistics System

Louisiana data for 1995-1996 were obtained from Louisiana State Center for Health Statistics

United States data for 1987-1996 were obtained from the National Vital Statistics System

Fetal Death by Maternal Race

As with the overall fetal mortality rate, race-specific rates have changed little over the past decade (Figure F3, Table F2).

Rates among African-Americans have been consistently higher than those among whites over the past decade (Figure F3, Table F2).

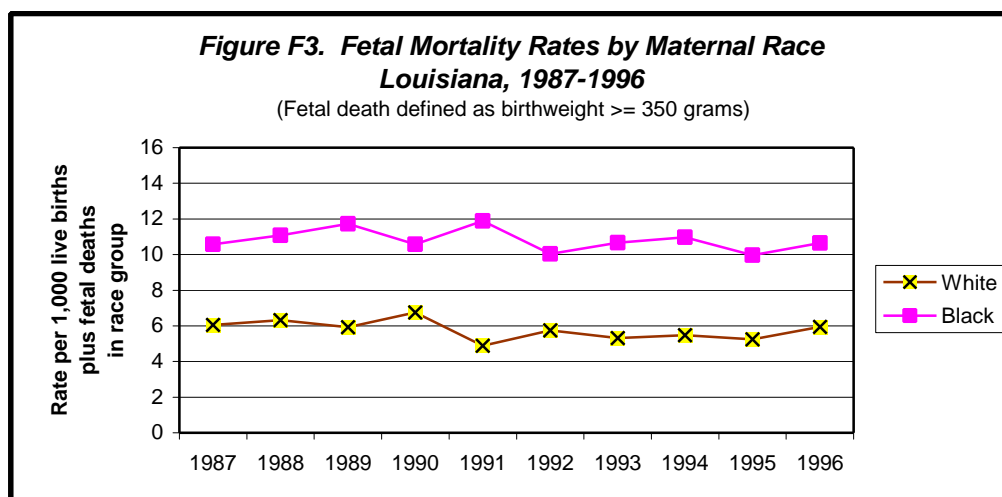
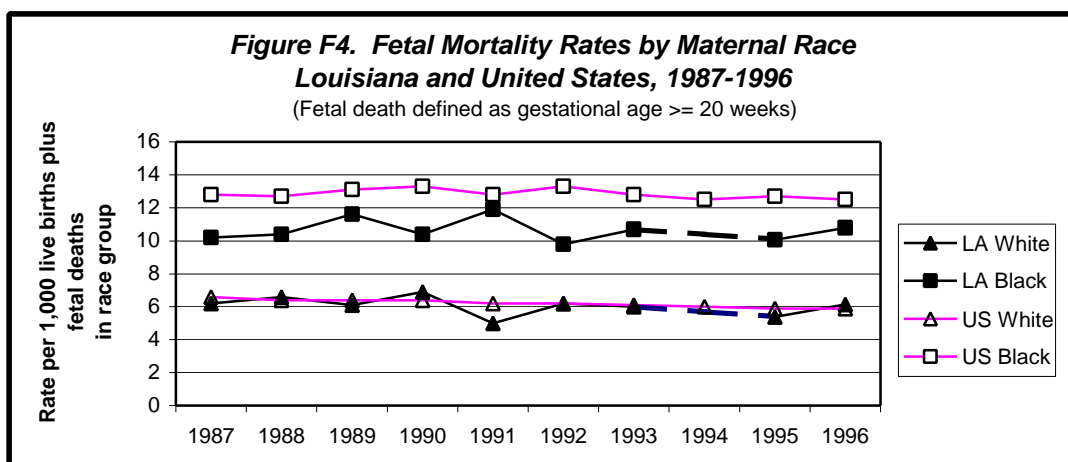


Table F2. Counts and Rates* of Fetal Deaths by Maternal Race Louisiana, 1987-1996						
(Fetal death defined as birthweight \geq 350 grams)						
Year	Maternal Race					
	White		Black		All Races**	
	Number	Rate	Number	Rate	Number	Rate
1987	261	6.1	312	10.6	580	7.8
1988	270	6.3	330	11.1	603	8.2
1989	246	5.9	349	11.7	597	8.2
1990	278	6.7	314	10.6	596	8.3
1991	198	4.9	361	11.9	560	7.8
1992	227	5.7	298	10.0	527	7.5
1993	204	5.3	316	10.7	526	7.6
1994	207	5.5	314	11.0	526	7.8
1995	196	5.2	267	10.0	471	7.2
1996	221	5.9	282	10.6	510	7.8

*Rate per 1,000 live births plus fetal deaths in race group

**"All Races" contains white, black, and other

- Fetal mortality rates for African-Americans in Louisiana have been lower than corresponding national rates during the past decade (Figure F4, Table F3).
- Rates for whites in Louisiana during the past ten years have closely mirrored the national rates (Figure F4, Table F3).
- Because of state versus national differences in distributions of race, Louisiana's total rates have been slightly higher than the national rates during the past decade (Figure F2, Table F3).



“-” = Louisiana Fetal mortality rate is not available for 1994

Source: Louisiana data for 1987-1993 were obtained from the National Vital Statistics System

Louisiana data for 1995-1996 were obtained from Louisiana State Center for Health Statistics

United States data for 1987-1996 were obtained from the National Vital Statistics System

Table F3. Fetal Mortality Rates* by Maternal Race						
Louisiana and United States, 1987-1996						
(Fetal death defined as gestational age ≥ 20 weeks)						
Year	Louisiana			United States		
	White	Black	All Races**	White	Black	All Races**
1987	6.2	10.2	7.8	6.6	12.8	7.6
1988	6.6	10.4	8.1	6.4	12.7	7.5
1989	6.1	11.6	8.3	6.4	13.1	7.5
1990	6.9	10.4	8.3	6.4	13.3	7.5
1991	5.0	11.9	7.9	6.2	12.8	7.3
1992	6.2	9.8	7.7	6.2	13.3	7.4
1993	6.0	10.7	8.0	6.1	12.8	7.1
1994	-	-	-	6.0	12.5	7.0
1995	5.4	10.1	7.3	5.9	12.7	7.0
1996	6.1	10.8	8.1	5.9	12.5	6.9

*Rate per 1,000 live births plus fetal deaths

**"All Races" contains white, African-American, and other

“-” = Louisiana Fetal mortality rate is not available for 1994

Source: Louisiana data for 1987-1993 were obtained from the National Vital Statistics System

Louisiana data for 1995-1996 were obtained from Louisiana State Center for Health Statistics

United States data for 1987-1996 were obtained from the National Vital Statistics System

Fetal Death by Maternal Race and Age

- Of the 538 fetal deaths to Louisiana residents in 1996, **234 were to white women, 297 were to African-American women, and 7 were to women of other races** (Table F4).
- **African-American women were almost twice as likely as white women to experience a fetal death**, at a rate of 11.1 compared with 6.2 fetal deaths per 1,000 live births plus fetal deaths in race-specific groups. **Similar racial disparities appeared in all age groups** (Figure F5, Table F4).
- **Women under 20 years of age reported the highest fetal mortality rate**, at 10.0 fetal deaths per 1,000 live births plus fetal deaths (Figure F5, Table F4).
- **After age 20 years, the fetal mortality rate increased as maternal age increased** (Figure F5, Table F4).

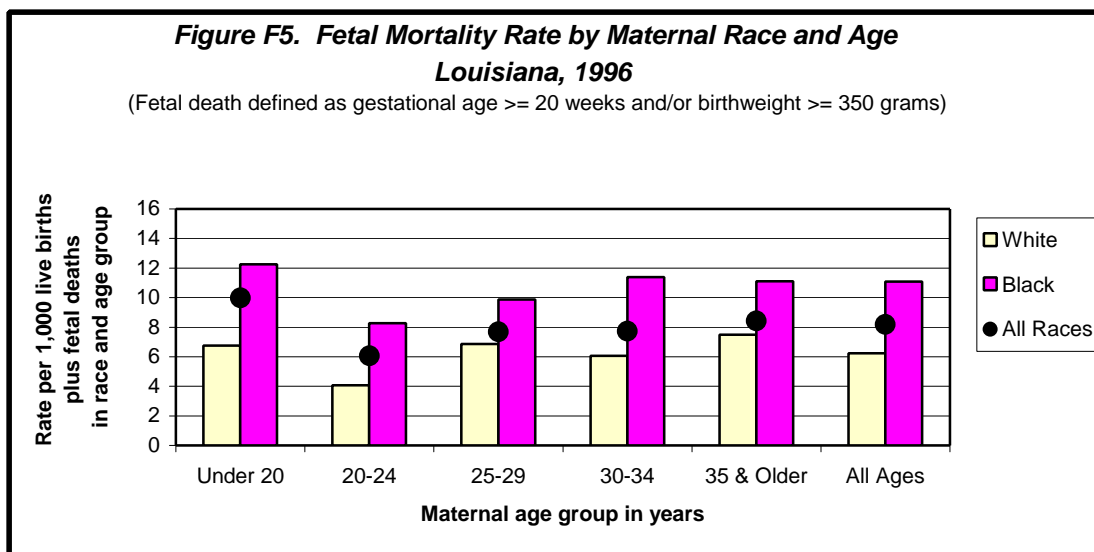


Table F4. Fetal Mortality Rates* by Maternal Race and Age Louisiana, 1996												
(Fetal death defined as gestation ≥ 20 weeks or birthweight ≥ 350 grams)												
Race	Maternal Age Group											
	Under 20		20-24		25-29		30-34		35 & Older		All Ages**	
	Num.	Rate	Num.	Rate	Num.	Rate	Num.	Rate	Num.	Rate	Num.	Rate
White	34	6.7	40	4.1	76	6.9	48	6.1	27	7.5	234	6.2
Black	89	12.3	74	8.3	52	9.9	39	11.4	21	11.1	297	11.1
All Races ⁺	124	10.0	116	6.1	129	7.7	90	7.7	48	8.4	538	8.2

*Rate per 1,000 live births plus fetal deaths

**"All Ages" contains unknown ages

⁺"All Races" contains white, black, and other

CAUSE OF DEATH

Fetal deaths described in this section include all fetal deaths reported to the Vital Records Registry in 1996, regardless of gestational age or birthweight.

- **Fetus affected by complications of placenta, cord, or membranes was the most frequently reported cause of fetal death** among Louisiana residents in 1996, with a count of 187 fetal deaths and a ratio of 286.9 occurrences per 100,000 live births (Table F5).
- **African-American women experienced fetal deaths due to complications of placenta, cord, or membranes at a higher ratio than white women.** The ratio in African-American women was 313.2 occurrences per 100,000 live births versus 276.6 occurrences per 100,000 live births in white women (Table F5).
- **The second most frequently reported cause of fetal death was fetus affected by maternal complications of pregnancy**, with a count of 71 fetal deaths and a ratio of 108.9 occurrences per 100,000 live births (Table F5).
- **African-American women were twice as likely as white women to experience a fetal death affected by maternal complications of pregnancy**, with a ratio of 154.7 occurrences per 100,000 live births versus 77.9 occurrences per 100,000 live births in white women.
- **The third most frequently reported cause of fetal death was disorders relating to short gestation and unspecified low birthweight**, with a count of 54 fetal deaths and a ratio of 82.8 occurrences per 100,000 live births (Table F5).
- **African-American women experienced a fetal death from short gestation or unspecified low birthweight at a ratio of 162.2 occurrences per 100,000 live births, which was much higher than the ratio of 29.5 for white women** (Table F5). The ratio in white women might be unstable, however, because the ratio is based on a small number of fetal deaths (11 deaths).

Table F5 summarizes fetal deaths by cause, maternal age, and maternal race.

Table F5. Counts of Fetal Deaths by Selected Cause, Maternal Age, and Maternal Race Louisiana, 1996												
(Data include all reported occurrences in 1996, regardless of gestational age or birthweight.)												
ICD-9 Cause of Fetal Death	Ratio*	Race	Total	Maternal Age Group								
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 & Older	Unk.
Total	868.3	All	566	4	125	120	137	96	47	5	1	31
	676.8	White	252	-	37	42	81	52	27	3	1	9
	1154.6	Black	306	4	86	76	55	41	20	2	-	22
	552.9	Other	8	-	2	2	1	3	-	-	-	-

* Ratio per 100,000 live births
(Table continues on the next page)

**Table F5 (continued). Counts of Fetal Deaths by Selected Cause, Maternal Age, and Maternal Race
Louisiana, 1996**

(Data include all reported occurrences in 1996, regardless of gestational age or birthweight.)

ICD-9 Cause of Fetal Death	Ratio*	Race	Total	Maternal Age Group								
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 & Older	Unk.
Congenital anomalies (740-759)	67.5	All	44	-	9	10	12	6	5	1	-	1
	75.2	White	28	-	4	5	9	5	4	1	-	-
	56.6	Black	15	-	5	4	3	1	1	-	-	1
	69.1	Other	1	-	-	1	-	-	-	-	-	-
Anencephalus and similar anomalies (740)	10.7	All	7	-	2	1	2	-	2	-	-	-
	13.4	White	5	-	2	-	1	-	2	-	-	-
	7.5	Black	2	-	-	1	1	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Spinal bifida (741)	1.5	All	1	-	-	-	1	-	-	-	-	-
	2.7	White	1	-	-	-	1	-	-	-	-	-
	-	Black	-	-	-	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Other congenital anomalies of nervous system (742)	4.6	All	3	-	1	1	1	-	-	-	-	-
	5.4	White	2	-	1	-	1	-	-	-	-	-
	-	Black	-	-	-	-	-	-	-	-	-	-
	69.1	Other	1	-	-	1	-	-	-	-	-	-
Congenital anomalies of heart (745-746)	9.2	All	6	-	1	1	2	1	-	-	-	1
	8.1	White	3	-	-	1	1	1	-	-	-	-
	11.3	Black	3	-	1	-	1	-	-	-	-	1
	-	Other	-	-	-	-	-	-	-	-	-	-
Congenital anomalies of respiratory system (748)	3.1	All	2	-	-	1	-	1	-	-	-	-
	5.4	White	2	-	-	1	-	1	-	-	-	-
	-	Black	-	-	-	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Multiple congenital anomalies (759.7)	10.7	All	7	-	1	1	3	1	1	-	-	-
	16.1	White	6	-	1	-	3	1	1	-	-	-
	3.8	Black	1	-	-	1	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
All other congenital anomalies (Remainder of 740-759)	27.6	All	18	-	4	5	3	3	2	1	-	-
	24.2	White	9	-	-	3	2	2	1	1	-	-
	34	Black	9	-	4	2	1	1	1	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-

* Ratio per 100,000 live births

(Table continues on the next page)

**Table F5 (continued). Counts of Fetal Deaths by Selected Cause, Maternal Age, and Maternal Race
Louisiana, 1996**

(Data include all reported occurrences in 1996, regardless of gestational age or birthweight.)

ICD-9 Cause of Fetal Death	Ratio*	Race	Total	Maternal Age Group								
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 & Older	Unk.
Fetus affected by maternal conditions which may be unrelated to present pregnancy (760)	46	All	30	1	6	6	7	6	3	-	1	-
	24.2	White	9	-	2	1	2	2	1	-	1	-
	79.2	Black	21	1	4	5	5	4	2	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Maternal hypertensive disorders (760.0)	27.6	All	18	1	2	5	5	4	-	-	1	-
	13.4	White	5	-	-	1	1	2	-	-	1	-
	49.1	Black	13	1	2	4	4	2	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Maternal injury (760.5)	9.2	All	6	-	4	-	1	-	1	-	-	-
	8.1	White	3	-	2	-	-	-	1	-	-	-
	11.3	Black	3	-	2	-	1	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Fetus affected by other maternal conditions which may be unrelated to pregnancy (Remainder of 760)	9.2	All	6	-	-	1	1	2	2	-	-	-
	2.7	White	1	-	-	-	1	-	-	-	-	-
	18.9	Black	5	-	-	1	-	2	2	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Fetus affected by maternal complications of pregnancy (761)	108.9	All	71	-	19	13	22	7	8	-	-	2
	77.9	White	29	-	3	4	11	3	6	-	-	2
	154.7	Black	41	-	15	9	11	4	2	-	-	-
	69.1	Other	1	-	1	-	-	-	-	-	-	-
Premature rupture of membranes (761.1)	59.8	All	39	-	11	7	12	5	4	-	-	-
	37.6	White	14	-	1	3	5	2	3	-	-	-
	94.3	Black	25	-	10	4	7	3	1	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Multiple pregnancy (761.5)	13.8	All	9	-	-	4	3	-	-	-	-	2
	13.4	White	5	-	-	-	3	-	-	-	-	2
	15.1	Black	4	-	-	4	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Fetus affected by other maternal complications of pregnancy (Remainder of 761)	35.3	All	23	-	8	2	7	2	4	-	-	-
	26.9	White	10	-	2	1	3	1	3	-	-	-
	45.3	Black	12	-	5	1	4	1	1	-	-	-
	69.1	Other	1	-	-	-	-	-	-	-	-	-

*Ratio per 100,000 live births
(Table continues on the next page)

**Table F5 (continued). Counts of Fetal Deaths by Selected Cause, Maternal Age, and Maternal Race
Louisiana, 1996**

(Data include all reported occurrences in 1996, regardless of gestational age or birthweight.)

ICD-9 Cause of Fetal Death	Ratio*	Race	Total	Maternal Age Group								
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 & Older	Unk.
Fetus affected by complications of placenta, cord, and membranes (762)	286.9	All	187	-	34	39	52	39	16	3	-	4
	276.6	White	103	-	11	20	34	26	9	1	-	2
	313.2	Black	83	-	23	19	18	12	7	2	-	2
	69.1	Other	1	-	-	-	-	1	-	-	-	-
Placenta praevia (762.0)	4.6	All	3	-	2	-	1	-	-	-	-	-
	2.7	White	1	-	-	-	1	-	-	-	-	-
	7.5	Black	2	-	2	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Other forms of placental separation and haemorrhage (762.1)	107.4	All	70	-	17	19	20	10	1	1	-	2
	91.3	White	34	-	6	7	13	7	1	-	-	-
	135.8	Black	36	-	11	12	7	3	-	1	-	2
	-	Other	-	-	-	-	-	-	-	-	-	-
Other and unspecified morphological and functional abnormalities of placenta (762.2)	29.1	All	19	-	4	7	5	1	1	-	-	1
	32.2	White	12	-	2	5	3	1	-	-	-	1
	26.4	Black	7	-	2	2	2	-	1	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Placental transfusion syndromes (762.3)	9.2	All	6	-	-	-	4	-	2	-	-	-
	16.1	White	6	-	-	-	4	-	2	-	-	-
	-	Black	-	-	-	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Prolapsed cord (762.4)	3.1	All	2	-	-	1	-	-	-	-	-	1
	5.4	White	2	-	-	1	-	-	-	-	-	1
	-	Black	-	-	-	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Other compression of umbilical cord (762.5)	64.4	All	42	-	6	9	9	11	6	1	-	-
	72.5	White	27	-	3	5	6	9	3	1	-	-
	56.6	Black	15	-	3	4	3	2	3	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Other and unspecified conditions of umbilical cord (762.6)	41.4	All	27	-	2	2	9	9	5	-	-	-
	43	White	16	-	-	1	6	6	3	-	-	-
	41.5	Black	11	-	2	1	3	3	2	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-

* Ratio per 100,000 live births

(Table continues on the next page)

**Table F5 (continued). Counts of Fetal Deaths by Selected Cause, Maternal Age, and Maternal Race
Louisiana, 1996**

(Data include all reported occurrences in 1996, regardless of gestational age or birthweight.)

ICD-9 Cause of Fetal Death	Ratio*	Race	Total	Maternal Age Group								
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 & Older	Unk.
Abnormalities of chorion and amnion (762.7 - 762.9)	27.6	All	18	-	3	1	4	8	1	1	-	-
	13.4	White	5	-	-	1	1	3	-	-	-	-
	45.3	Black	12	-	3	-	3	4	1	1	-	-
	69.1	Other	1	-	-	-	-	1	-	-	-	-
Fetus affected by other complications of labour and delivery (763)	4.6	All	3	-	-	2	1	-	-	-	-	-
	2.7	White	1	-	-	1	-	-	-	-	-	-
	7.5	Black	2	-	-	1	1	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Slow fetal growth and fetal malnutrition (764)	1.5	All	1	1	-	-	-	-	-	-	-	-
	-	White	-	-	-	-	-	-	-	-	-	-
	3.8	Black	1	1	-	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Disorders relating to short gestation and unspecified Low birthweight (765)	82.8	All	54	2	16	11	10	7	1	1	-	6
	29.5	White	11	-	4	1	3	1	1	1	-	-
	162.2	Black	43	2	12	10	7	6	-	-	-	6
	-	Other	-	-	-	-	-	-	-	-	-	-
Birth trauma (767)	3.1	All	2	-	-	1	-	1	-	-	-	-
	2.7	White	1	-	-	1	-	-	-	-	-	-
	3.8	Black	1	-	-	-	-	1	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Intrauterine hypoxia and birth asphyxia (768)	16.9	All	11	-	2	3	4	2	-	-	-	-
	16.1	White	6	-	-	-	4	2	-	-	-	-
	18.9	Black	5	-	2	3	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Haemolytic disease of fetus due to isoimmunization and other perinatal jaundice (773 - 774)	-	All	-	-	-	-	-	-	-	-	-	-
	-	White	-	-	-	-	-	-	-	-	-	-
	-	Black	-	-	-	-	-	-	-	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-
Syndrome of "infant of a diabetic mother" and neonatal diabetes mellitus (775.0 - 775.1)	6.1	All	4	-	-	-	2	1	1	-	-	-
	5.4	White	2	-	-	-	1	1	-	-	-	-
	7.5	Black	2	-	-	-	1	-	1	-	-	-
	-	Other	-	-	-	-	-	-	-	-	-	-

* Ratio per 100,000 live births

(Table continues on the next page)

**Table F5 (continued). Counts of Fetal Deaths by Selected Cause, Maternal Age, and Maternal Race
Louisiana, 1996**

(Data include all reported occurrences in 1996, regardless of gestational age or birthweight.)

ICD-9 Cause of Fetal Death	Ratio*	Race	Total	Maternal Age Group								
				Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 & Older	Unk.
Unspecified cause (779.9, 799.9)	188.7	All	123	-	26	26	23	22	10	-	-	16
	112.8	White	42	-	7	5	13	9	3	-	-	5
	290.5	Black	77	-	18	20	9	12	7	-	-	11
	276.4	Other	4	-	1	1	1	1	-	-	-	-
All other causes (Residual)	55.2	All	36	-	13	9	4	5	3	-	-	2
	53.7	White	20	-	6	4	4	3	3	-	-	-
	56.6	Black	15	-	7	5	-	1	-	-	-	2
	69.1	Other	1	-	-	-	-	1	-	-	-	-

* Ratio per 100,000 live births